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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,336	02/28/2002	Dieter Kerner	39509-177800	5608

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EXAMINER	
ROBERTSON, JEFFREY	
ART UNIT	**PAPER NUMBER**
1712	

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,336	KERNER ET AL.	
	Examiner	Art Unit	
	Jeffrey B. Robertson	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *0804* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In the specification on pages 3 and 4, under f) and g) in the definition of R"", what does "A" mean?

Appropriate correction is required.

Claim Objections

2. Claims 3-9 are objected to because of the following informalities:

For claim 3, in line 1, "[t]he" should be deleted since the claim is now an independent claim. Also for claim 3, under d) and e), the conjunction between alkyl, cycloalkyl should be "or" in the definition of R'. With the conjunction "and" it appears that R' is required to be both alkyl and cycloalkyl. Under m), the Y definition should all be placed together so that it is clear that the groups present under the formula are part of the Y definition. In addition, the second occurrence of "Y=" should be deleted. Also under m), there is now a problem with the formulas at the bottom of the page as there are atoms missing.

Also for claim 3, in subsection (l), the structure of D5 is objected to because the "O" at the bottom of the structure is inside the ring, and there is a "-" where the "O" should be.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 3-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 3, under f), h), i), and (j), applicant has added the phrase "wherein x is 0, one or more" after the group $-S_x-(CH_2)_3Si(OR)_3$. There is no support for this change in the specification. The specification does not define "x" in $-S_x-(CH_2)_3Si(OR)_3$.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3, 4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deller et al. (U.S. Patent No. 5,776,240) in view of Mangold et al. (CA 2,223,377).

For claim 3, in column 1, line 48, through column 2, line 5, Deller teaches that pyrogenically prepared silicon dioxide is silanized with alkoxy silanes, silazanes, and or siloxanes. For claims 3, 8, and 9, Deller teaches in column 4, lines 15-28, that octamethylcyclotetrasiloxane is used as the siloxane for silanizing the silicon dioxide. For claims 4, 6, and 7, Deller teaches in column 10, lines 28-35, that the granules are sprayed with water prior to being treated with silanizing agent, treated with the silanizing

agent, allowed to mix for 15 to 30 more minutes, and then heated for 1 to 4 hours at 100 to 400°C. Deller fails to teach that the pyrogenically produced oxides are doped by aerosol.

Mangold teaches pyrogenically produced oxides that are doped, including silicon dioxide on page 3, lines 18-22. On page 2, lines 5-22, Mangold teaches that the oxides are doped by aerosol.

Mangold and Deller are analogous art in that they come from the same field of endeavor, namely the use of pyrogenically prepared oxides as catalyst supports. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the oxides in the treatment process of Deller. The motivation would have been that Mangold states that the doped pyrogenically prepared oxides have advantages over the non-doped oxides on page 15, lines 8-16. These advantages are in the form of larger cohesive structures, increased sediment volume, and a greatly increased efficiency value. One of ordinary skill in the art would have been motivated by the improvement in these properties in using the doped oxides of Mangold.

7. Claims 3, 5, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laüfer et al. (U.S. Patent No. 4,022,152) in view of Mangold et al. (CA 2,223,377).

For claims 3, 5, 8, and 9, in column 8, lines 57-61, Laüfer teaches a pyrogenic silicic acid (SiO_2) is treated with octamethyltetrasiloxane. For claim 5, in column 3, lines 59-68, Laüfer discloses that the fillers produced are used in silicone rubbers for a greater thickening effect. Laüfer fails to teach that the pyrogenic silica is doped by aerosol.

Mangold teaches pyrogenically produced oxides that are doped, including silicon dioxide on page 3, lines 18-22. On page 2, lines 5-22, Mangold teaches that the oxides are doped by aerosol.

Mangold and Laüfer are analogous art in that they come from the same field of endeavor, namely the use of pyrogenically prepared oxides as fillers. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the oxides in the treatment process of Laüfer. The motivation would have been that Mangold states that the doped pyrogenically prepared oxides have advantages over the non-doped oxides on page 15, lines 8-20 including an increase in thickening effect. One of ordinary skill in the art would have been motivated by the improvement in thickening effect in substituting the doped oxides of Mangold for the oxides used in Laüfer.

Response to Arguments

8. Applicant's arguments filed 9/30/03 have been fully considered but they are not persuasive. Regarding the inserted definition for "x" in S_x, the examiner disagrees that there is implied support for this definition in the specification. Applicant now argues that the specification suggests that *if* "S" is present, it is present in integral amounts. Applicant cites Deller (applied above) for support for this definition. In addition, applicant argues that recognition of possession does not hinge on the specific silanizing agent used. The examiner finds no such support for these assertions in the specification. Applicant has set forth no evidence that the definition of "zero, one or more" is present in the specification. First, regarding applicant's reliance on Deller, this

reference itself does not provide support for the insertion of "or more" for the integers of "x" that are more than 1. This would actually provide evidence that there is no support for such an insertion because only 0 or 1 is allowed. Also, these insertions must have support in the specification as originally filed. The examiner is not persuaded by applicant's arguments that such support is present in the instant specification. In addition, the recitation of "1 or more" is open-ended and therefore it is not known what the limits are for the integer "x".

Regarding the rejection under 35 U.S.C. §103(a) of claims 3, 4, and 6-9 as being unpatentable over Deller et al. (U.S. Patent No. 5,776,240) in view of Mangold et al. (CA 2,223,377), applicant argues that the examiner is relying on "obvious to try" rationale and that there is no problem in Deller that would suggest the need for doping surface-modified granules. Applicant also argues that neither reference suggests the advantages set forth by applicant in the specification. The examiner disagrees. The references themselves, particularly the Mangold reference, provide sufficient motivation, which need not be the same as applicant's, as detailed in the above rejection. The examiner has not relied on applicant's specification to arrive at the present combination of references. In addition, Mangold teaches that these oxides can be used as fillers, and therefore they are useful in polyester resins. See page 4, lines 11-12 of Mangold. Therefore, the rejection under 35 U.S.C. §103(a) of claims 3, 4, and 6-9 as being unpatentable over Deller et al. (U.S. Patent No. 5,776,240) in view of Mangold et al. (CA 2,223,377) is continued.

Regarding the rejection under 35 U.S.C. §103(a) of claims 3, 5, 8, and 9 as being unpatentable over Laüfer et al. (U.S. Patent No. 4,022,152) in view of Mangold et al. (CA 2,223,377), applicant argues that they are claiming powdery oxides and not granules. In response, the examiner notes that there is no recitation of the term "powdery" in the claims. In addition, the distinction between the two is not clear.

Applicant argues that there is no problem in Laüfer that would suggest the need for doping surface-modified granules. Applicant also argues that neither reference suggests the advantages set forth by applicant in the specification. The examiner disagrees. The references themselves, particularly the Mangold reference, provide sufficient motivation, which need not be the same as applicant's, as detailed in the above rejection. Here applicant also argues that Laüfer appears to teach away from the invention because if the rationale of the examiner is followed, a water solution would be added to particles from which Laüfer is trying to remove water. However, as explained in the previous office action, this is not the rationale advanced by the examiner. The examiner's rationale is that the particles would be doped and then dried prior to the surface treating step. Therefore, applicant's argument is not persuasive.

In addition, applicant argues that the examiner has relied only on applicant's disclosure to suggest the combination of references. As stated in the previous office action, the examiner disagrees. The references themselves provide sufficient motivation as detailed in the above rejection. The examiner has not relied on applicant's specification to arrive at the present combination of references. One of ordinary skill in the art is not required to have "assurances of success". Only a

reasonable expectation of success is required. Therefore, the rejection under 35 U.S.C. §103(a) of claims 3, 5, 8, and 9 as being unpatentable over Laüfer et al. (U.S. Patent No. 4,022,152) in view of Mangold et al. (CA 2,223,377) is continued.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P Gulakowski can be reached on (571) 272-1302. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey B. Robertson
Primary Examiner
Art Unit 1712

JBR